

Title (en)

PROCESS AND INSTALLATION FOR OBTAINING ENZYMES FROM ENZYME CONTAINING SUSPENSION

Publication

**EP 0473011 A3 19920930 (DE)**

Application

**EP 91113641 A 19910814**

Priority

DE 4027290 A 19900829

Abstract (en)

[origin: EP0473011A2] To obtain enzymes from an enzyme-containing suspension such as, in particular, from untreated fermentation broth, the suspension is introduced together with granular material which is able to attach enzyme, such as, in particular, an ion exchanger material, into a vertical tube and a stream of inert gas formed, in particular, by dry nitrogen is passed through the mass at a gas velocity sufficient for fluidisation. During this the mass is mixed and solvent (water) evaporates until sufficient enzyme attachment to the granular material by concentration is achieved. The suspension residues are driven out of the mass, in particular by a pulse of compressed gas, and the attached enzyme is eluted. To speed up the process the stream of gas and/or the mass itself are preferably heated to temperatures tolerated by the enzyme. It is possible and preferable to carry out a washing step between the removal of the suspension residues and the elution of the enzyme, in which case the washing liquid is expediently passed to another fixed bed column with granular material able to attach enzymes. The elution can be carried out as stepwise elution. <IMAGE>

IPC 1-7

**C12N 9/00**; **C12M 1/04**

IPC 8 full level

**C12M 1/40** (2006.01); **C12N 9/00** (2006.01)

CPC (source: EP US)

**C12M 1/40** (2013.01 - US); **C12M 21/18** (2013.01 - EP); **C12M 23/06** (2013.01 - EP); **C12M 47/10** (2013.01 - EP); **C12N 9/00** (2013.01 - EP US)

Citation (search report)

- [A] EP 0092845 A2 19831102 - KYOWA HAKKO KOGYO KK [JP]
- [A] US 4665027 A 19870512 - DALE M CLARK [US], et al

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